

The genera *Megamphopus* Norman and *Microprotopus* Norman (Amphipoda — Gammaridea) in the Mediterranean

by Alan A. MYERS *

Abstract. — A new species of *Megamphopus* (*M. brevidactylus* sp. nov.) is described and figured from the Mediterranean and compared with other known species from that sea. The occurrence of *Microprotopus longimanus* Chevreux in the Mediterranean requires confirmation. This suggestion is based on a study of one of the only two recorded Mediterranean specimens attributed to this species from Marseille, and further hitherto undescribed material from Sicily. Figures are given of *Microprotopus longimanus* Chev. from the Atlantic coast of France for comparison with Mediterranean material.

Résumé. — Une nouvelle espèce de *Megamphopus* (*M. brevidactylus* sp. nov.) est décrite de Méditerranée et figurée ; elle est comparée aux autres espèces méditerranéennes connues. La présence de *Microprotopus longimanus* Chevreux en Méditerranée nécessite une confirmation, comme l'a montré l'étude de l'un des deux seuls spécimens de Méditerranée attribué à cette espèce et provenant de Marseille, et celle d'un matériel recueilli en Sicile et encore non décrit. Des spécimens de *Microprotopus longimanus* Chev. des côtes atlantiques de France sont figurés par comparaison avec le matériel méditerranéen.

INTRODUCTION

During studies on collections of Isacaidae from the Mediterranean Sea, material of a new species of *Megamphopus* Norman was examined and is herein described and figured and compared with other known Mediterranean species. Two species of *Microprotopus* Norman are recorded in the literature from the Mediterranean, one of which, *M. longimanus* Chevreux, is recorded only from Marseille and represented by two specimens only. Due to the kindness of Dr. M. LEDOYER, it has been possible to examine one of these specimens, and the results of the study of this specimen together with further specimens from Sicily kindly loaned to the writer by Dr. G. KRAPP-SCHICKEL suggest that the material is doubtfully to be attributed to *M. longimanus* Chevreux. Figures are given of *M. longimanus* from the Atlantic coast of France for comparison with Mediterranean material.

In addition to my colleagues mentioned above, I am also indebted to Pr. Sandro RUFFO (Museo Civico di Storia Naturale, Verona) Dr. J. FOREST (Muséum national d'Histoire naturelle, Paris) and Dr. MACQUART-MOULIN (Station marine d'Endoume) for material on which to base this study.

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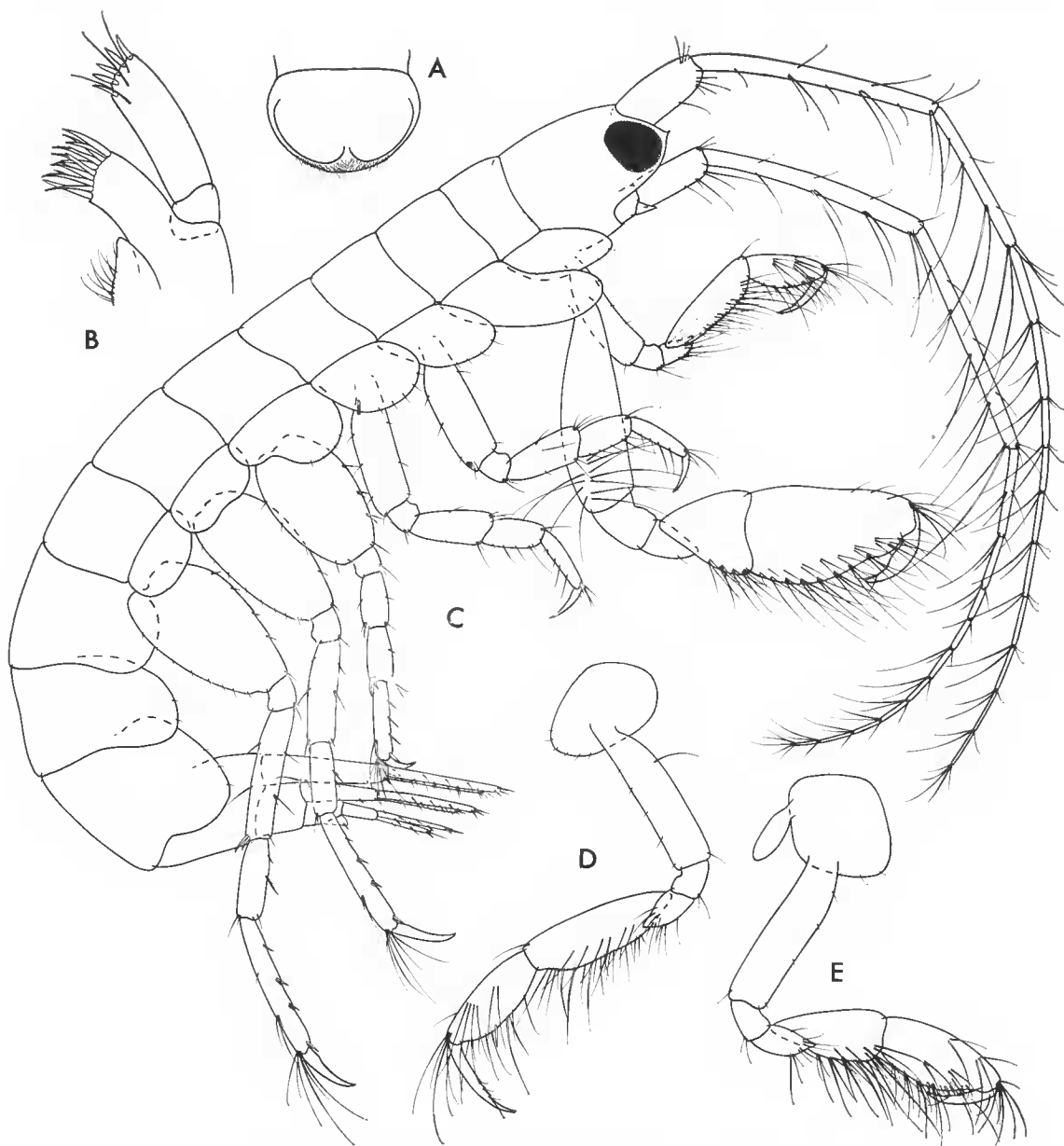


FIG. 1. — *Megamphopus brevidactylus* sp. nov., Capri.
♂ : A, labrum ; B, maxilla 1 ; C, lateral view. — ♀ : D, gnathopod 1 ; E, gnathopod 2.

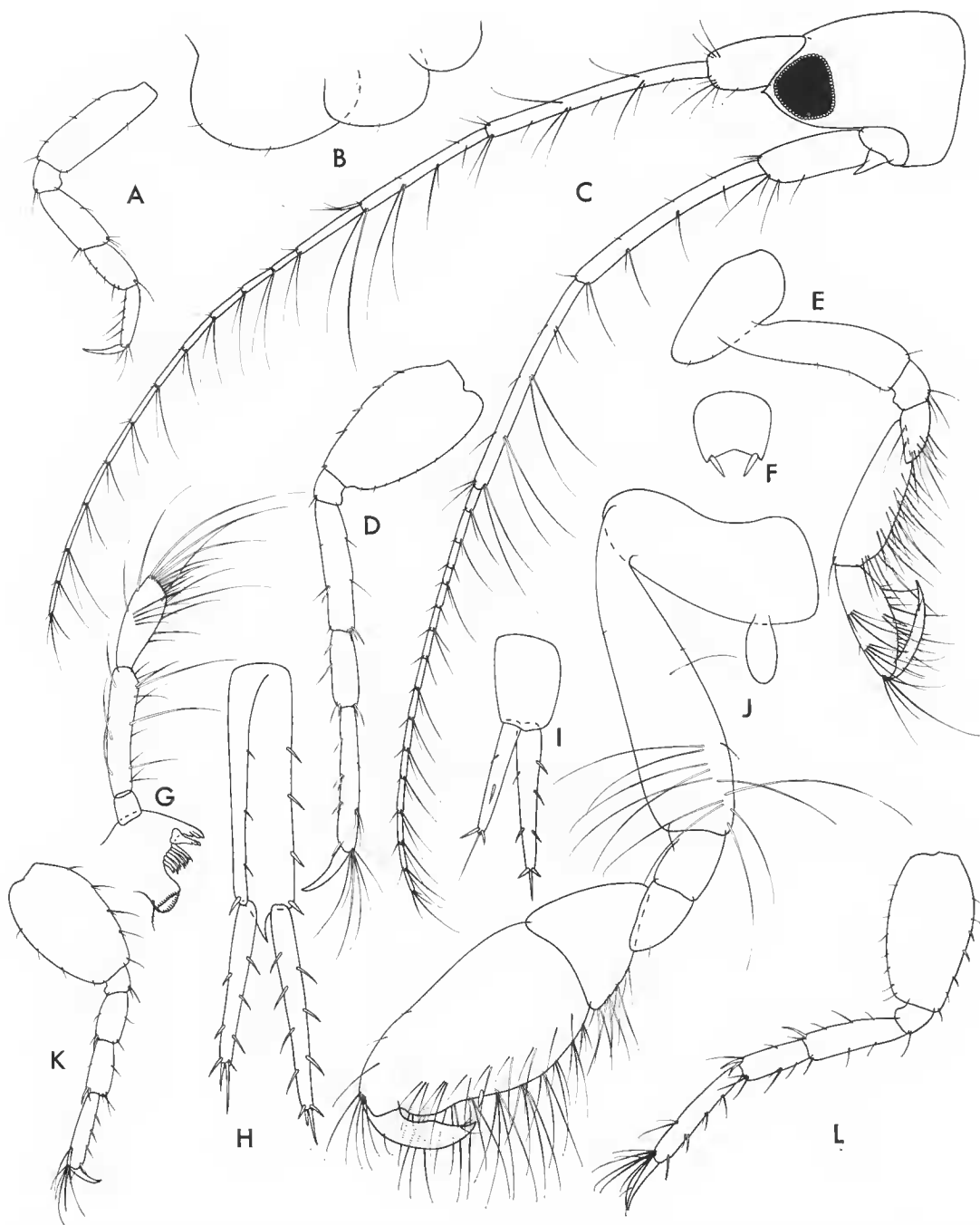


FIG. 2. — *Megamphopus brevidactylus* sp. nov., Capri. ♂ : A, pereopod 3; B, epimera 1-3; C, head; D, pereopod 7; E, gnathopod 1; F, telson; G, mandible; H, uropod 1; I, uropod 3; J, gnathopod 2; K, pereopod 5; L, pereopod 6.

Genus **Megamphopus** Norman*Megamphopus brevidactylus* sp. nov.
(Figs 1-2)

MATERIAL : 2 ♂ 3 ♀, Capri, 120-150 m, 18/V/1955 ; 1 ♂, Capri, 90 m, 17/V/1955.

DESCRIPTION

♂ 3.5 mm. Head with lateral cephalic lobes produced into a terminal fine pointed projection, ventro-lateral cephalic margin deeply recessed. Eye large composed of many small ommatidea. Antenna 1 a little shorter than the body length, peduncular article ratio (basi-distal) 3 : 8 : 5, flagellum longer than peduncle with 10 articles, accessory flagellum less than half length of first flagellar article, composed of one long and one rudimentary terminal article. Antenna 2 subequal with antenna 1, peduncular article 5 a little longer than 4, flagellum subequal with combined length of peduncular articles 4 and 5. Gnathopod 1 slender, coxa rounded, somewhat produced anteriorly, propodus about three quarters the length of the carpus, palm very oblique, dactyl elongate. Gnathopod 2 coxa almost twice as long as broad, strongly produced forward, rounded, basis flaskshaped, carpus short, cup-shaped, propodus two times or more length of carpus, the posterior margin smoothly rounded, produced into a weak rounded lobe in the palmar region, dactyl short, swollen medially. Pereopods 3-7 normal for the genus. Epimera 1-3 rounded. Uropods 1-3 slender, uropod 3 inner ramus one and one half times the length of peduncle.

♀ 3.5 mm. Similar to male, but gnathopod 2 slender, coxa subquadrangular, propodus a little longer than carpus, slender, sub-ovoid, dactyl fitting the very oblique palm.

DISCUSSION

M. brevidactylus sp. nov. is undoubtedly very close to *M. longicornis* Chevreux from which it differs in its more slender build and relatively longer antennae, and in the form of the male gnathopod 2 which has the propodus markedly longer, the palm smoothly rounded (not produced into a rounded tooth) and the dactyl very short and stout.

It has not been possible to examine Mediterranean material of *M. longicornis* but material from Atlantic France has been studied and found to agree well with the original description of CHEVREUX (1911) from Algeria (Anaba). The close agreement between material from these two widely separate localities and the marked differences between that material and *M. brevidactylus* sp. nov. suggest that *M. longicornis* and *M. brevidactylus* do not merely represent points on a cline.

Megamphopus longicornis Chevreux
(Fig. 3)

Megamphopus longicornis Chevreux, 1911 : 251, pl. 18, figs. 6-11 ; CHEVREUX & FAGE, 1925 : 318, fig. 327.
Megamphopus chevreuxi Thurston, 1974 : 92.

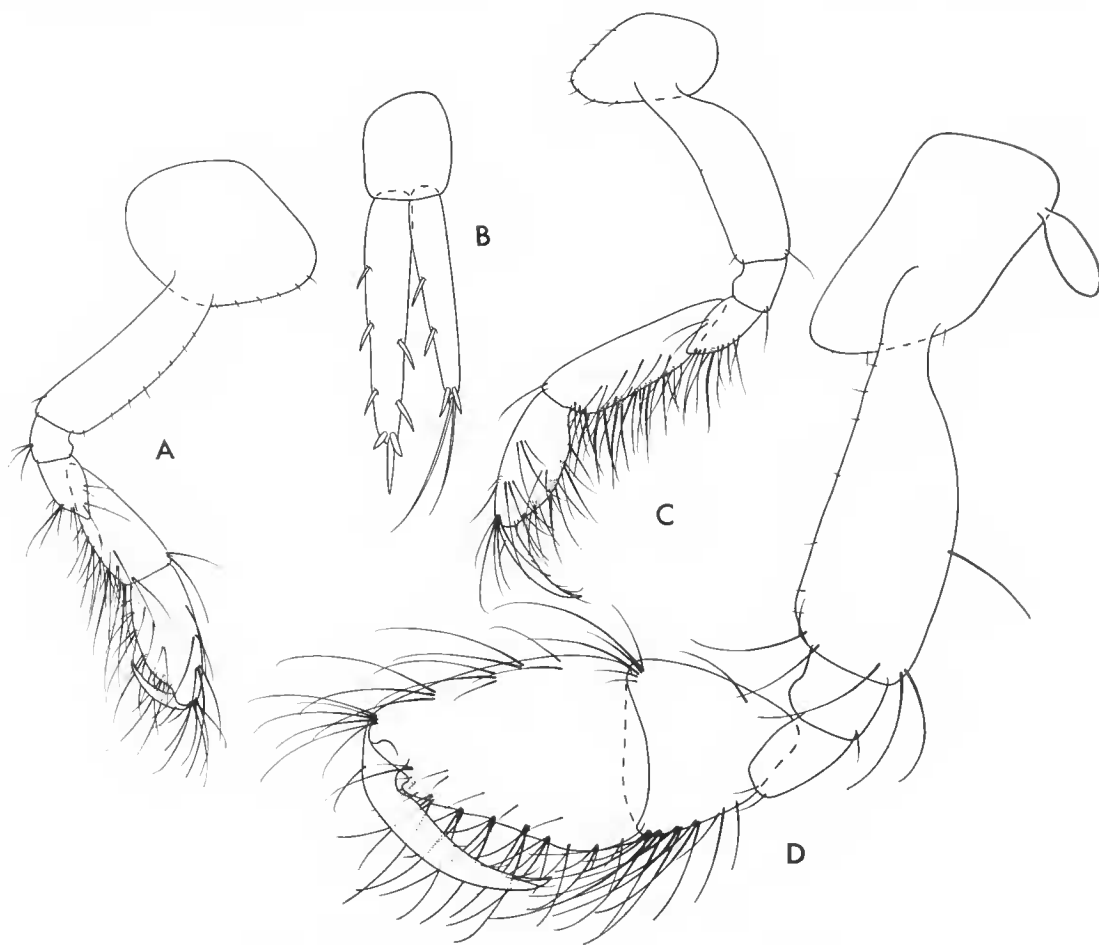


FIG. 3. — *Megamphopus longicornis* Chevreux, Belle-Ile.
 ♀ : A, gnathopod 2. — ♂ : B, uropod 3 ; C, gnathopod 1 ; D, gnathopod 2.

DISCUSSION

Mediterranean material of this species has not been examined by the writer. It is here figured from Belle Ile, Atlantic coast of France, for comparison with *M. brevidactylus* sp. nov.

BARNARD (1962) removed *Eurystheus longicornis* Walker (1906) to *Megamphopus*, thus reducing *M. longicornis* Chevreux to a junior homonym. THURSTON, 1974, then proposed the name *Megamphopus chevreuxi* for *M. longicornis* Chevreux. BARNARD (1973) removed *Eurystheus longicornis* Walker to *Gammaropsis* Liljeborg, including only *M. longicornis* Chevreux and *M. cornutus* in *Megamphopus* Norman. The name *M. longicornis* Chevreux can thus stand.

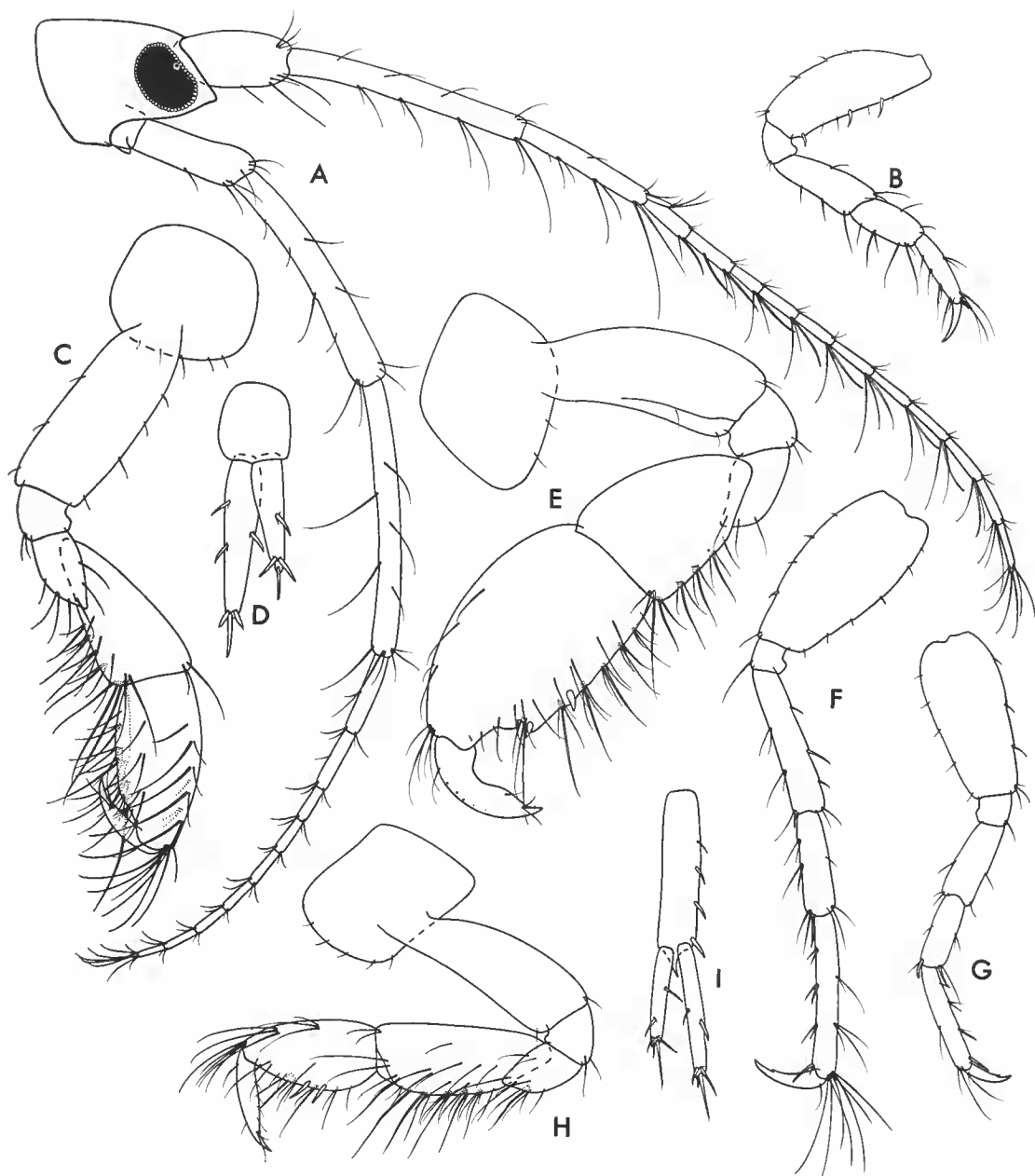


FIG. 4. — *Megamphopus cornutus* Norman, Marseille. ♂ : A, head ; B, pereopod 3 ; D, uropod 3 ; E, gnathopod 2 ; F, pereopod 7 ; G, pereopod 6 ; H, gnathopod 1 ; I, uropod 2. — ♀ : C, gnathopod 2.

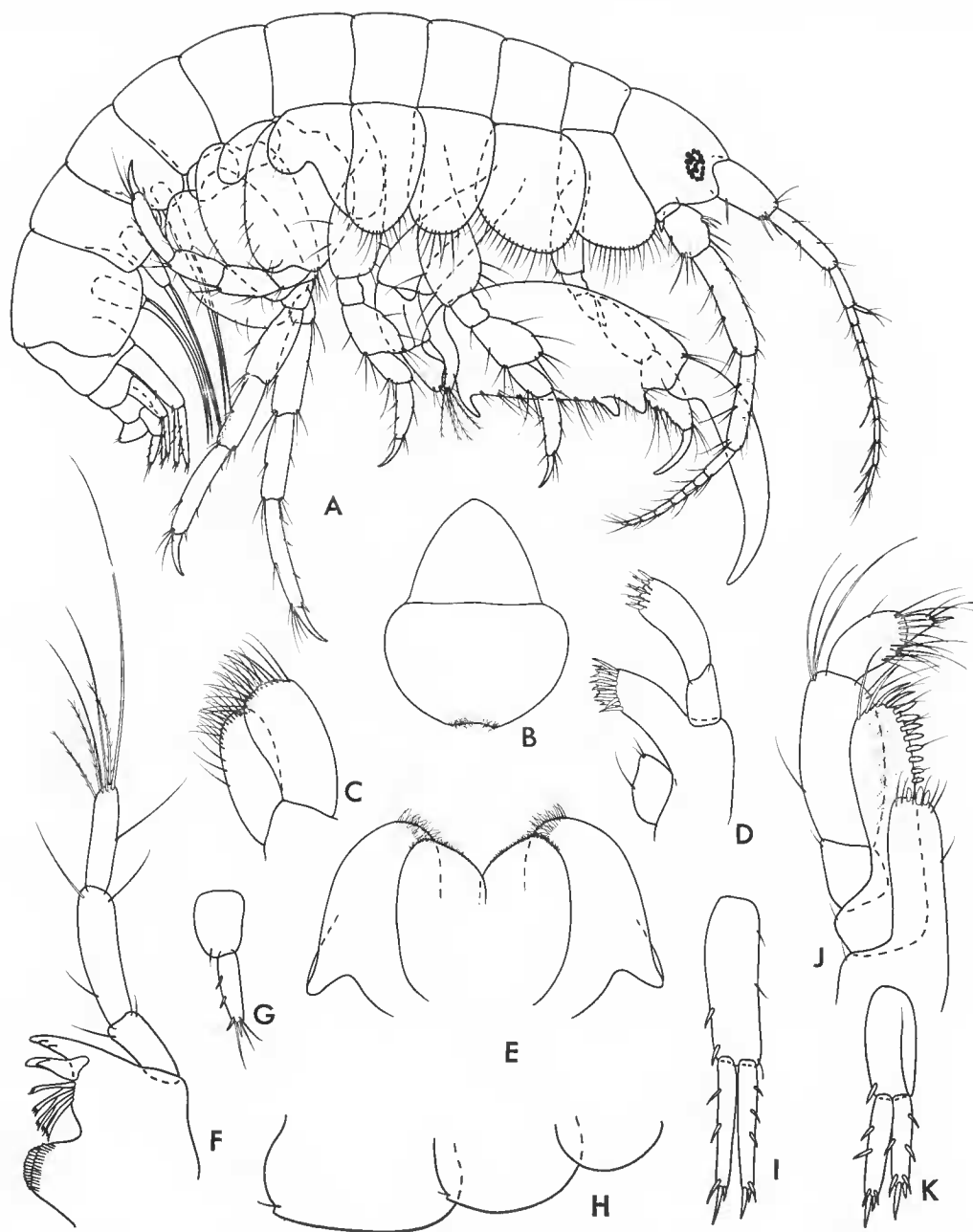


FIG. 5. — *Microprotopus maculatus* Norman, Napoli. ♂ : A, lateral view ; B, labrum ; C, maxilla 2 ; D, maxilla 1 ; E, labium ; F, mandible ; G, uropod 3 ; H, epimera 1-3 ; I, uropod 1 ; J, maxilliped ; K, uropod 2.

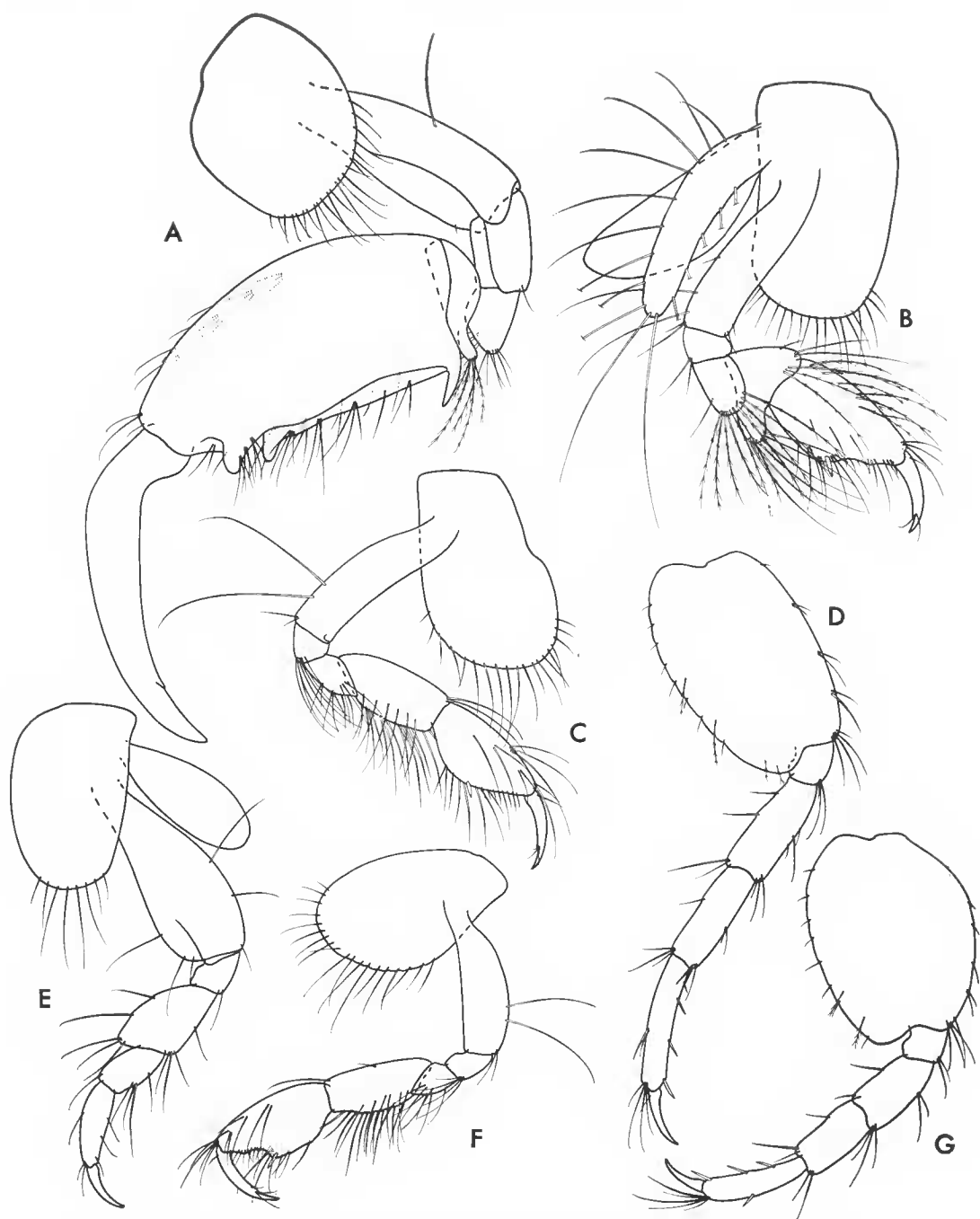


FIG. 6. — *Microprotopus maculatus* Norman, Napoli. ♂ : A, gnathopod 2 ; D, pereopod 7 ; E, pereopod 3 ; F, gnathopod 1 ; G, pereopod 5. — ♀ : B, gnathopod 2 ; C, gnathopod 1.

Megamphopus cornutus Norman
(Fig. 4)

Megamphopus cornutus Norman, 1869 : 282 ; Sars, 1894 : 564, fig. 200 ; Chevreux & Fage, 1925 : 319, fig. 328 ; Schellenberg, 1942 : 195, fig. 162 ; Carausu & Carausu, 1942 : 75, figs. 6-7.

MATERIAL : 13 ♂ 14 ♀, Marseille ; 1 ♂ 1 ♀, Gaiola (Gulf of Napoli) 35-40 m, 23/VI/1954.

DISCUSSION

Present material differs from that of Norman (1869), Sars (1894), and Chevreux and Fage (1925) only in the rounded and not produced coxa 1 of the male. In this it agrees with material from the Black Sea described by Carausu & Carausu (1942). Material examined by the writer from Le Croisic (Atlantic, France) also showed an unproduced male coxa 1, and the observation and conclusion by Walker (1895) on material from Liverpool Bay, England : "None of the specimens taken so far show the prolongation of the first epimeric of the percon described by Norman... apparently it only acquires its full development in northern seas" is probably correct.

Genus *Microtopotus* Norman

Microtopotus maculatus Norman
(Fig. 5-6)

Microtopotus maculatus Norman 1867 : 203 ; Della Valle, 1893 : 393, pl. 56, figs 13-16 ; Sars, 1894 : 567, pl. 201 ; Chevreux & Fage, 1925 : 308, fig. 318 ; Schellenberg, 1942 : 202, fig. 167.

MATERIAL : 7 ♂ 6 ♀, Gulf of Napoli.

DISCUSSION

Material of this species examined in the present work agrees closely with the description of Chevreux and Fage (1925).

Microtopotus sp.
(Fig. 7)

MATERIAL : 1 ♂ 2 ♀, Sicily, among *Zostera*, 10 m ; 1 ♂, Bandol, among *Cymodocea*.

DISCUSSION

Among samples collected by Dr. G. Krapp-Schickel in Sicily was found a single male specimen of *Microtopotus* which although exhibiting the normal body form, antennal length and pigmentation of *M. maculatus*, possessed a gnathopod 2 which was superficially similar to that of *M. longimanus* Chevreux. A study of material of *M. longimanus* from Le Croisic (Atlantic, France) (fig. 8) revealed that the male gnathopod 2 of the Medi-

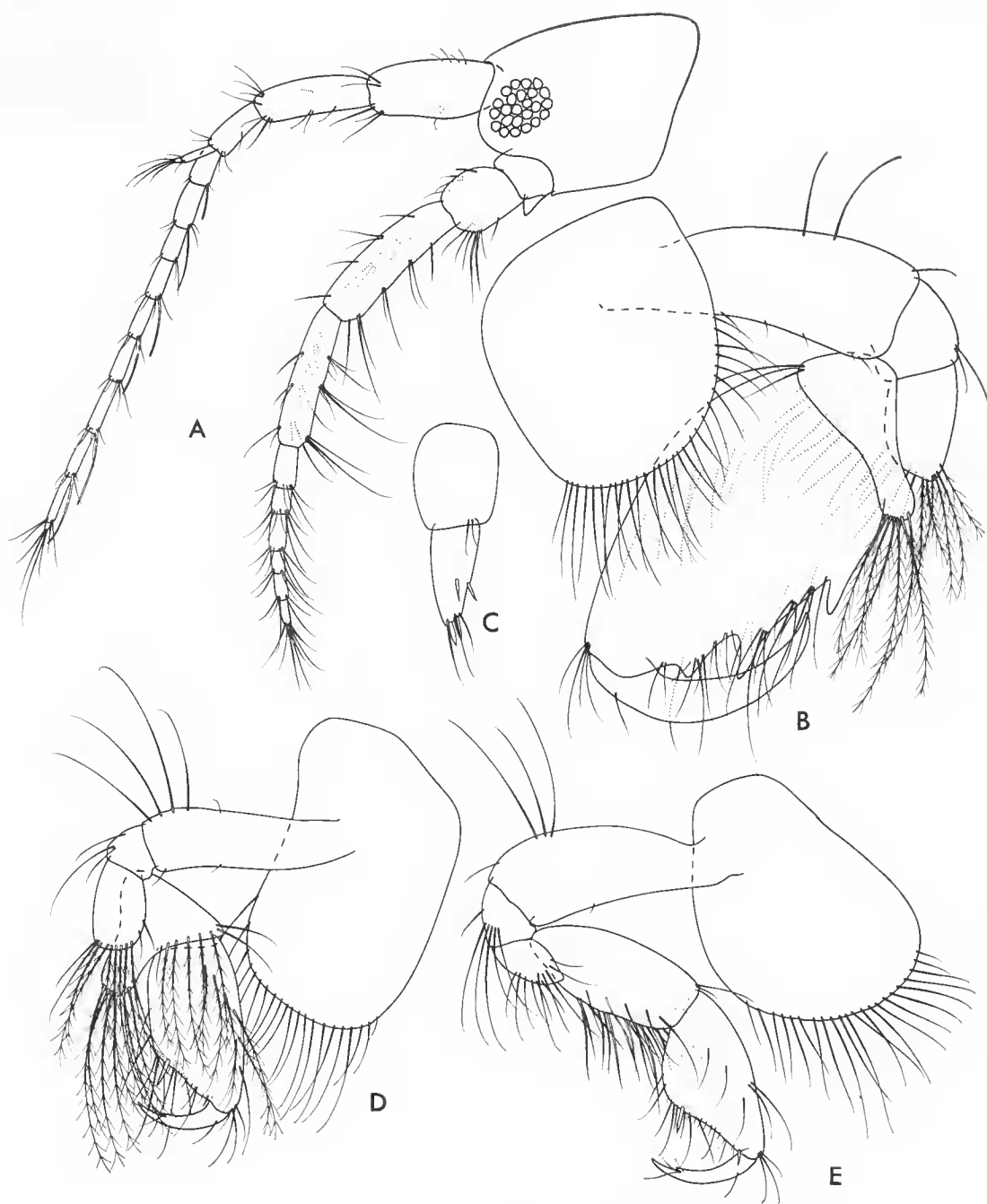


FIG. 7. — *Microprotopus* sp., Sicily. ♂ : A, head ; B, gnathopod 2 ; C, uropod 3 ; E, gnathopod 1. — ♀ : D, gnathopod 2.

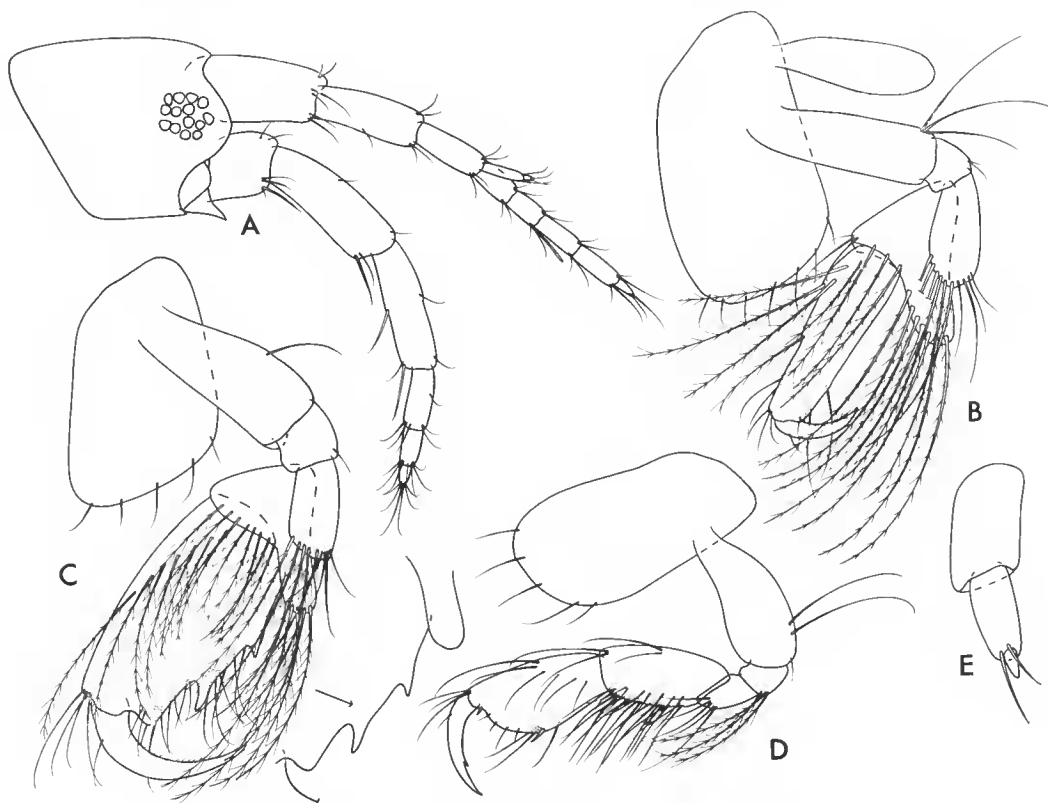


FIG. 8. — *Microprotopus longimanus* Chevreux, Le Croisic.
 ♂ : A, head ; C, gnathopod 2 ; D, gnathopod 1 ; E, uropod 3. — ♀ : B, gnathopod 2.

terranean material differed from that of *M. longimanus* in its larger and more rounded coxa with numerous long setae on its lower margin, its more rounded propodus and in the relatively short pectinate setae borne on the merus and carpus. Two females accompanying the male in the Sicily collection could not be distinguished from *M. maculatus* Norman.

M. longimanus has been recorded from the Mediterranean on the strength of two specimens from Marseille. One of these specimens, a female in very poor condition (lacking antennae, pereopods 5-7 and uropod 3), was examined in the present investigations. In this specimen gnathopod 2 has a more slender propodus than that of the Sicily females, though scarcely as slender as in *M. longimanus*, while coxa 2 agrees more closely in its strongly setose lower border, with *M. maculatus* and the Sicily females than with *M. longimanus*.

It would be senseless to draw any conclusions from such a small amount of material, other than that the occurrence of *M. longimanus* in the Mediterranean requires confirmation. It is merely intended here to draw the attention of workers in the Mediterranean area to this problem.

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